

Remarks

Reconsideration of the present reissue application is hereby requested.

In regard to the claims:

Claims 1 to 65 were pending in this application.

Claims 24 and 25 have been canceled.

Claims 23, 37, 47, 49, 53 to 55, 58 and 62 have been amended. In particular, claim 23 has been amended to include the limitation of dependent claim 25, claim 37 has been amended to now specify that the magnetic/metallic security device has a plurality of metallic, conductive regions and non-conductive regions, and that the non-conductive regions extend entirely across the width of the security device. Claims 47, 49, 53 to 55, 58 and 62 have been amended to specify that the metallic layer forms a plurality of conductive regions on the carrier substrate, and that these regions are separated by non-conductive regions that extend across the entire width of the carrier substrate. Support for these amendments can be found throughout the reissue application including Col. 2, lines 16 to 27, and Col. 5, lines 30 to 45. No new matter has been added.

Claims 1 to 22, 26 to 36, 50 to 52, 56 to 57 and 60 to 61 have been allowed.

Claims 1 to 23 and 26 to 65 are currently pending in this application.

The undersigned wishes to thank the Examiner for the courtesy extended in granting the telephone interview of Tuesday, January 19, 2005, during which the present Amendment was discussed.

Applicant acknowledges the requirement under 37 C.F.R. § 1.178 that the original patent, or a statement as to loss or inaccessibility of the original patent, must be received before the reissue application can be allowed.

In regard to the rejection of claims 23 to 25 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,535,871 to Harbaugh, Applicant respectfully submits that this rejection is in error and should be withdrawn. Claims 24 and 25 have been canceled. Moreover, nothing in Harbaugh teaches, or even remotely suggests, the metallic security device of claim 23, as amended.

U.S. Patent No. 5,535,871 to Steven K. Harbaugh relates to a capacitive-type verification device for authenticating currency paper and determining its denomination. The device performs these functions by detecting the presence of a metallized security thread¹ and “reading” the denomination therefrom.

The security threads described in Harbaugh contain a predetermined number of discrete electrically-conductive segments separated by corresponding electrically-insulative segments. The length of each conductive segment indicates the denomination of the associated currency paper. Characters in the form of electrically-insulative areas are present within the electrically-conductive segments. These characters are typically observed by the human eye upon holding the paper up to relatively strong transmitted light. See Cols. 4 to 5, lines 65 to 14, of Harbaugh.

Harbaugh fails to teach, or even remotely suggest, characters present in the electrically-insulative segments. It is therefore respectfully requested that the Examiner's rejection of claim 23, be withdrawn.

In regard to the rejection of claims 47 to 49, 53 to 55, 58 to 59 and 62 to 63 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,803,503 to Kaule *et al.*, Applicant respectfully submits that this ground for rejection is untenable and should be withdrawn. Nothing in Kaule *et al.*, alone or in any permissible combination, teaches or even remotely suggests the magnetic/metallic security device of claims 47 to 49, 54, 55, 58, 59, 62, 63, or the method of making a magnetic/metallic security device of claim 53.

¹ Such threads are typically embedded within a currency or banknote paper with their long dimension parallel to the narrow dimension of the paper.

Kaule *et al.* discloses an improved security thread that matches the appearance of commercially established electrically conductive metallic threads in which a metal layer contained on a plastic carrier film extends along the entire length of the film and bears negative writing. The feature of continuous metallization renders these security threads electrically conductive and thus machine detectable. The improvement disclosed by Kaule *et al.* basically comprises the combination of magnetics with the electrically conductive negative writing.

The ability to test for electric conductivity is important in Kaule *et al.* because it allows security documents employing the Kaule *et al.* thread to be authenticated using relatively simple sensors, such as those found on conventional used note-sorting machines. See Col. 2, lines 23 to 31, of Kaule *et al.*

Kaule *et al.* fails to teach, and in fact teaches away from, introducing breaks into the continuous metallic coating of its security thread, where such breaks would lead to a complete loss of electric conductivity. See generally Col. 6, lines 1 to 9, of Kaule *et al.* It is therefore respectfully requested that the Examiner's rejection of claims 47 to 49, 53 to 55, 58, 59, 62, 63, be withdrawn.

In regard to the rejection of claims 37 to 42 and 46 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,803,503 to Kaule *et al.*, Applicant respectfully submits that this ground for rejection is untenable and should be withdrawn. Nothing in Kaule *et al.*, alone or in any permissible combination, teaches or even remotely suggests the method of authenticating a magnetic/metallic security device of claims 37 to 42 and 46, as amended.

The earlier discussion of Kaule *et al.* is incorporated herein by reference.

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to implement the test/detection criteria for document authentication of Kaule *et al.* to arrive at the present claimed authentication method.

Applicants take the position that there is no *prima facie* case of obviousness for the present claims 37 to 42 and 46 over Kaule *et al.*

The detection scheme for document authentication of Kaule *et al.* relies upon the presence of a continuous metal path along the entire length of the security thread. Where the ability to test for electric conductivity is important to Kaule *et al.*, in that it can be measured at relatively low hardware expense and by a simple sensor (see Col. 2, lines 23 to 31, of Kaule *et al.*), it would not have been obvious to introduce breaks into the continuous metallic coating of the Kaule *et al.* security thread, thereby destroying this feature.

Applicant therefore submits that the cited reference fails to teach or render obvious the magnetic/metallic security device of claims 37 to 42 and 46, as amended.

In regard to the rejection of claims 43 to 45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,803,503 to Kaule *et al.* in view of U.S. Patent No. 4,183,989 to Tooth, Applicant respectfully submits that this ground for rejection is untenable and should be withdrawn. Nothing in Kaule *et al.*, alone or in combination with Tooth, teaches or even remotely suggests the method of authenticating a magnetic/metallic security device of claims 43 to 45.

Where claims 43 to 45 depend from an allowable independent claim, they too should be deemed allowable.

In regard to the rejection of claims 64 to 65 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,535,871 to Harbaugh in view of U.S. Patent No. 5,803,503 to Kaule *et al.*, Applicant respectfully submits that this ground for rejection is untenable and should be withdrawn. Nothing in Harbaugh, alone or in combination with Kaule *et al.*, teaches or even remotely suggests the magnetic/metallic security device of claims 64 to 65.

The earlier discussion of Harbaugh is incorporated herein by reference.

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include a magnetic security feature having the detectable magnetic layer such as taught by Kaule *et al.* in the security document of Harbaugh².

Applicants take the position that there is no *prima facie* case of obviousness for the present claims 64 to 65 over Harbaugh in view of Kaule *et al.*

More specifically, Applicant submits that it would not have been obvious to modify the security document of Harbaugh as proposed by the Examiner, where Harbaugh teaches away from the use of a magnetic material as a security feature on a security thread where:

- (1) Such a feature, although machine readable, does not offer a public security feature, such as printed text, that is visual under transmitted light (Col. 3, lines 45 to 47, of Harbaugh);
- (2) Relying upon the field produced by a certain magnitude or configuration of magnetic materials is problematic in that such coded variations are subject to obliteration by intentional or accidental demagnetization subsequent to the original magnetization (Col. 3, lines 47 to 51, of Harbaugh); and
- (3) To accomplish a machine-readable feature, one would need to employ specialty screen printing equipment to apply the magnetic metal discontinuously on the thread. In addition, magnetic field array detectors, which are expensive to manufacture, would be required to resolve the coded sequence. Moreover, these array detectors are particularly problematic for reading threads when banknotes or other documents are processed narrow-edge versus wide-edge, where the

² Although Kaule *et al.* is listed on page 10, line 3, of the subject Office Action, it appears that the Examiner intended to reference Harbaugh.

number of sites on the array that are processed for the wide-edge feed condition are reduced (Col. 3, lines 54 to 65, of Harbaugh).

In view of the above, Applicants submit that the cited references fail to teach or render obvious the magnetic/metallic security device of claims 64 to 65.

Early reconsideration of the subject reissue application is respectfully requested. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,



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